more clearly define Applicants' invention.

Reconsideration and allowance of the application respectfully are requested.

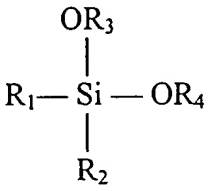
**Claim Rejections**

*Rejection Under 35 U.S.C. § 103*

(a) Response to Rejection of Claims 1-15 under 35 U.S.C. § 103(a) as being Unpatentable over the Japanese Patent Abstract of Kiyokazu and PCT Application of Licciardi et al.

In response to the rejection of claims 1-15 under 35 U.S.C. § 103 as being unpatentable over Japanese Patent Abstract 10130280 of Kiyokazu ("280 Document"), and PCT Application WO 97/30096 of Licciardi et al. ("Licciardi"), Applicants respectfully submit that a *prima facie* case of obviousness has not been presented.

The present invention is directed to aromatic silane compounds used in the production of olefin polymers having a stereoblock content of 7 to 25%. The presently claimed invention includes aromatic silane compounds of formula I:



(I)

wherein $R_1$ is selected from the group consisting of linear or branched $C_{1\text{-}26}$ alkyl, $C_{2\text{-}26}$ alkenyl, $C_{1\text{-}26}$ alkoxy, $C_{2\text{-}26}$ alkoxyalkyl, $C_{7\text{-}26}$ cycloalkyl and $C_{4\text{-}26}$ cycloalkoxy groups, optionally containing one or more halogen atoms, and $R_2$ is an aromatic ring having at least one substituent in the ortho position, with the proviso that when $R_2$ comprises a naphthyl group, $R_1$ is a linear $C_1$-$C_{26}$ alkyl.

The atactic nature of polymers having the stereoblock content described in the invention is advantageous in those applications where high degrees of crystallinity (isotactic polymers) are not suitable (page 2, lines 1-9 of the specification).

The organo-silicon compounds of the 280 Document, in contrast, are directed to producing olefin-based polymers having good steroregulation (page 5, paragraph [0001]).

Formulas (I) and (II) of the reference disclose α and β naphthyl silane compounds, where the $R_3$-$R_6$ substituents are $C_{1-3}$ alkyl groups (page 7, paragraphs [0009-0011]). The compounds disclosed by the reference are thus organo silicon compounds having a naphthyl substituent and a branched alkyl substituent. In contrast, the presently claimed invention teaches aromatic silane compounds where if $R_2$ is a naphthyl group, $R_1$ is a linear alkyl. The reference thus does not teach compounds having all the features of the presently claimed invention.

Licciardi is directed to organosilane compounds for producing polypropylenes having high crystallinity (page 3, lines 18-19). Structure (I) of the reference describes silane compounds having polynuclear aromatic radical substituents (page 4, lines 12-13). The reference also indicates that the polynuclear aromatic groups can be derived from 2-methylnaphthalene (page 6, lines 3-5). However, none of the preferred compounds or working examples of the reference teach silane compounds having naphthyl substituents which are even substituted, much less substituted in the ortho position as in the presently claimed invention. The reference thus does not teach compounds having all the features of the presently claimed invention.

Further, there is no motivation or suggestion to modify the teachings of the 280 Document or Licciardi to arrive at the present invention. Both the 280 Document and Licciardi are directed to compounds for the production of high crystallinity (isotactic) polymers. For example, Table 1 of the 280 Document illustrates that the organo silicon compounds of the reference produce propylene polymers having very high levels of mmmm pentads (95.9%+). This is in contrast to the compounds of the presently claimed invention. For example, in Table 1 of the present specification, the compound of Example 10 demonstrates a propylene polymer stereoblock content (21.4%) well in excess of the 280 Document compounds. The propylene polymer of Example 10 was produced using an aromatic silane compound having a naphthyl substituent and a linear alkyl substituent, where the naphthyl compound is substituted in the ortho position.

In addition, as mentioned above, since the 280 Document is directed to organic silicon compounds having a naphthyl substituent and a branched alkyl substituent, it teaches away from the presently claimed invention, which is directed to compounds having a linear alkyl substituent when the compound also has a naphthyl substituent.

Finally, modifying the compounds of the 280 Document or Licciardi to arrive at

the compounds of the present invention would render both of these references unsatisfactory for their intended purpose since, as discussed above, the modifications would not produce the intended high crystallinity polymers.

Thus, it is readily apparent that the cited references in this rejection do not teach or suggest Applicants' invention. Therefore, this ground of rejection should be withdrawn, and each of the pending claims indicated to be allowable over the prior art.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version With Markings to Show Changes Made."

Applicants respectfully request that a timely Notice of Allowance be issued in this case. Should the Examiner have questions or comments regarding this application or this amendment, Applicants' attorney would welcome the opportunity to discuss the case with the Examiner.

It is not believed that any fee is required for entry and consideration of this Amendment; nevertheless, the Commissioner is hereby authorized to charge U.S. PTO Deposit Account 08-2336 in the amount of any such required fee.

This is intended to be a complete response to the Office Action mailed July 17, 2001.

Respectfully submitted,

**ERIC J. EVAIN ET AL.**

November 14 2001 By: William R Reid
(Date)

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I hereby certify that this correspondence is being deposited with sufficient postage thereon with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on November 15, 2001.

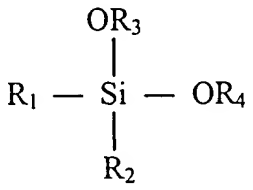
Nov. 15, 2001
Date of Signature

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**
**Filed on November 15, 2001**

**In the Claims**

Claims 1, 7, and 15 have been changed by deleting the characters in brackets and adding the underlined material, as reported below. For the Examiner's convenience, even the unchanged claims have been reported in the following.

1. (Amended) An aromatic silane compound having formula (I):



(I)

wherein

$R_1$ is selected from the group consisting of linear or branched $C_{1-26}$ alkyl, $C_{2-26}$ alkenyl, $C_{1-26}$ alkoxy, $C_{2-26}$ alkoxyalkyl, $C_{7-26}$ aryalkyl, $C_{3-26}$ cycloalkyl and $C_{4-26}$ cycloalkoxy groups, optionally containing one or more halogen atoms;

$R_2$ is an aromatic ring having at least one substituent in the ortho position selected from $C_{1-10}$ hydrocarbon groups with the proviso that when $R_2$ comprises a naphthyl group, $R_1$ is a linear $C_1$-$C_{26}$ alkyl; and

$R_3$ and $R_4$, the same or different from each other, are selected from the group consisting of linear or branched $C_{1-10}$ alkyl and $C_{3-10}$ cycloalkyl groups.

2. The aromatic silane compound of claim 1, wherein $R_1$ is selected from the group consisting of linear or branched $C_{1-18}$ alkyl and $C_{3-18}$ cycloalkyl groups.

3. The aromatic silane compound of claim 2, wherein $R_1$ is selected from the group consisting of linear $C_{1-5}$ alkyl and branched $C_{3-8}$ alkyl groups.

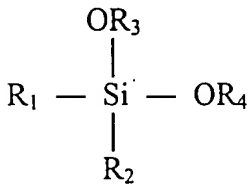
4. The aromatic silane compound of claim 1, wherein $R_2$ is selected from the group consisting of mono-substituted phenyl, di-substituted phenyl and monsubstituted naphthyl.

5. The aromatic silane compound of claim 1, wherein $R_3$ and $R_4$ are selected from the group consisting of linear or branched $C_{1-8}$ alkyl and $C_{3-8}$ cycloalkyl groups.

6. The aromatic silane compound of claim 5, wherein $R_3$ and $R_4$ are methyl or ethyl.

7. (Amended) A catalyst system for the polymerization of olefins comprising:

(A) an aromatic silane compound having formula (I):



(I)

wherein

$R_1$ is selected from the group consisting of linear or branched $C_{1-26}$ alkyl, $C_{2-26}$ alkenyl, $C_{1-26}$ alkoxy, $C_{2-26}$ alkoxyalkyl, $C_{7-26}$ arylalkyl, $C_{3-26}$ cycloalkyl and $C_{4-26}$ cycloalkoxy groups, optionally containing one or more halogen atoms;

$R_2$ is an aromatic ring having at least one substituent in the ortho position with the proviso that when $R_2$ comprises a naphthyl group, $R_1$ is a linear $C_1$-$C_{26}$ alkyl; and

$R_3$ and $R_4$, the same or different from each other, are selected from the group consisting of linear or branched $C_{1-10}$ alkyl and $C_{3-10}$ cycloalkyl groups;

(B) an aluminum alkyl compound; and

(C) a solid catalyst component comprising Mg, Ti, halogen and an electron donor compound.

8. The catalyst system of claim 7 wherein, in said aromatic silane compound (A), $R_1$ is selected from the group consisting of linear or branched $C_{1-18}$ alkyl, $C_{1-18}$ alkoxyl and $C_{3-18}$ cycloalkyl groups.

9. The catalyst system of claim 8, wherein $R_1$ is selected from the group consisting of linear $C_{1-5}$ alkyl and branched $C_{3-8}$ alkyl groups.

10. The catalyst system of claim 7 wherein, in said aromatic silane compound (A), $R_2$ is selected from the group consisting of mono-substituted phenyl, di-substituted phenyl and mono-substituted naphthyl, and said substituent in the ortho position is selected from the group consisting of linear or branched $C_{1-10}$ alkyl and $C_{1-10}$ alkoxy groups.

11. The catalyst system of claim 7 wherein, in said aromatic silane compound (A), $R_3$ and $R_4$ are selected from the group consisting of linear or branched $C_{1-8}$ alkyl and $C_{3-8}$ cycloalkyl groups.

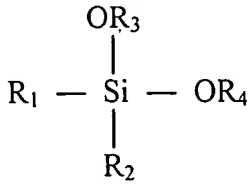
12. The catalyst system of claim 11, wherein $R_3$ and $R_4$ are methyl or ethyl.

13. The catalyst system of claim 7, wherein said solid component (C) comprises a titanium compound having at least one titanium-halogen bond and an internal electron donor, both supported on an active magnesium halide.

14. The catalyst system of claim 13, wherein said solid component (C) comprises the reaction product of titanium tetrachloride, active magnesium chloride and an internal electron donor.

15. (Amended) A process for the polymerization of alpha-olefins comprising polymerizing propylene in the presence of the catalyst system [as described in claim 7] comprising:

(A) an aromatic silane compound having formula (I):



(I)

wherein

$R_1$ is selected from the group consisting of linear or branched $C_{1-26}$ alkyl, $C_{2-26}$ alkenyl, $C_{1-26}$ alkoxy, $C_{2-26}$ alkoxyalkyl, $C_{7-26}$ arylalkyl, $C_{3-26}$ cycloalkyl and $C_{4-26}$ cycloalkoxy groups, optionally containing one or more halogen atoms;

$R_2$ is an aromatic ring having at least one substituent in the ortho position with the proviso that when $R_2$ comprises a naphthyl group, $R_1$ is a linear $C_1$-$C_{26}$ alkyl; and

$R_3$ and $R_4$, the same or different from each other, are selected from the group consisting of linear or branched $C_{1-10}$ alkyl and $C_{3-10}$ cycloalkyl groups;

(B) an aluminum alkyl compound; and

(C) a solid catalyst component comprising Mg, Ti, halogen and an electron donor compound, to produce a polyolefin having a stereoblock content of from about 7 to about 25%.